

Applicant: Rashid A. Fawwaz
U.S. Serial No.: 10/608,841
Filed: June 26, 2003
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Amendments to the Specification

Please replace the paragraph beginning on page 10, line 17 with the following amended paragraph:

~~The survival of Lewis cardiac allografts is summarized in Table I.~~
The difference in allograft survival among the experimental groups was determined using Kaplan-Meyer estimates of the survival curve and the log-rank test. The survival in control (Group I, n=6) untreated ACI recipients was 9.66 ± 0.75 days. Animals receiving transient immunosuppression alone (0.5ml i.p. ALS) (Group II, n=6) at the time of transplantation showed a prolonged allograft survival time of 16.8 ± 1.3 days. Peritransplant recipient treatment with 20mg/kg body weight streptavidin for 5 days significantly prolonged allograft survival to $MST \pm SD$ of 19.8 ± 6.5 days ($p < 0.001$) in 5 of 6 animals while the sixth recipient accepted its cardiac allograft for more than 250 days. The addition of a single peritransplant dose of ALS immunosuppression to peritransplant streptavidin treatment (Group IV) induced permanent cardiac allograft survival (>250 days) in 6/10 animals, which was significantly longer ($p < 0.006$) than in control animals which received ALS alone.

Please replace the paragraph beginning on page 12, line 9 with the following amended paragraph:

The underlying mechanisms of graft prolongation by streptavidin has not yet been determined. These may be dependent on the ability of streptavidin to interfere with cell division as has been demonstrated in bacteria and tumors (9,10). Streptavidin may

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critically interfere with proliferation of and function of cells essential for immune response. A further explanation put forward by investigators is that streptavidin exhibits structural homology to the Arg-Tyr-Asp-Ser (SEQ ID NO:1) cell adhesion domain of fibronectin and other matrix-associated glycoproteins (11). Thus, streptavidin may bind to the T-cells mediating rejection via this site and abrogate their adhesion-dependent immune function. Further studies have suggested that altered biocompatibility of cells is due to alteration in the surface charge of cells carrying streptavidin (12).

Following the section entitled "Abstract of the Disclosure" on page 19 of the specification, please insert the Sequence Listing attached hereto as **Exhibit B**.